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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,299	11/28/2001	Kenzo Kasahara	KON-1686	4016

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EXAMINER

SHEWAREGED, BETELHEM

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/996,299

Applicant(s)

KASAHARA, KENZO

Examiner

Betelhem Shewareged

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 14-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-13, drawn to recording sheet, classified in class 428, subclass 195.
 - II. Claims 14-18, drawn to method of printing on recording sheet, classified in class 347, subclass 20.
 - III. Claim 19, drawn to method of making recording sheet, classified in class 427, subclass 384.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process of using that product, (e.g., the product can be used as a wall paper rather than a printing material).
3. Inventions I and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process, (e.g., providing a film containing organic particles of

Art Unit: 1774

elastomers, ethylene-vinyl acetate copolymer, styrene-acrylic copolymer or polyamide resins, and laminating the film onto a substrate).

4. Inventions II and III are related as process of making and process of using the product. Since the product is not allowable, restriction is proper between said method of making and method of using. Furthermore, since the examiner showed that the process of making product is distinct from the product, a three way requirement for restriction is proper. See 37 CFR 1.141(b)

(b) Where claims to all three categories, product, process of making, and process of use, are included in a national application, a three way requirement for restriction can only be made where the process of making is distinct from the product. If the process of making and the product are not distinct, the process of using may be joined with the claims directed to the product and the process of making the product even though a showing of distinctness between the product and process of using the product can be made.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Charles A. Muserlian on 02/27/2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-13. Affirmation of this election must be made by applicant in replying to this Office action. Claims 14-19 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

7. Claim 1 is objected to because of the following informalities: The term "a" on line 6, between "in" and "range" is misspelled as --an--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 3-5, 9 and 11-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 3, 9 and 11-13, the use of the term "fine" renders the claim ambiguous. The term is neither defined in the specification nor does it have a well-defined meaning in the art. The necessary degree of fine particle size has not been defined.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hasegawa et al. (US 5,027,131).

Hasegawa discloses a recording medium for receiving ink jet ink, comprises a substrate, an ink retaining layer on the substrate and an ink transporting layer on the ink retaining layer (col. 3, line 15). The ink retaining layer is equivalent to the claimed second porous layer and the ink transporting layer is equivalent to the claimed first porous layer. The substrate can be made of polyethylene terephthalate, polycarbonate,

Art Unit: 1774

cellophane, celluloid, polyvinyl chloride, and polyimide (col. 4, line9), wherein these materials are non-water absorptive. The ink retaining layer comprises hydrophilic polymer and optionally inorganic pigment (col. 7, lines 17-41). The ink transporting layer comprises non-dyeable particles having primary particle diameter of 0.1 or more and a non-dyeable binder (col. 4, line 55), wherein the primary particle diameter overlaps with the claimed primary particle diameter. The non-dyeable particles are equivalent to the claimed organic particles. Examples of non-dyeable particles are particles made of elastomers, ethylene-vinyl acetate copolymer, styrene-acrylic copolymer, polyamide resins, SBR, NBR, polytetrafluoro ethylene and polyesters (col. 5, line 40). Examples of non-dyeable binder are polyacrylamide, polyvinyl alcohol, polyvinyl butyral, polyvinyl pyrrolidone, gelatin and polyurethane (col. 6, line 1). Since the mixing ratio of non-dyeable particles to non-dyeable binder is 1:5 to 50/1 (col. 6, line 25), the ink transporting layer may comprise the non-dyeable particles as a primary component.

The aqueous solution recited in claims 1 and 6 that may or may not be provided on the first porous layer has not been given patentable weight because the aqueous solution is not on the first porous layer yet. Furthermore, formulae 1 and 2 do not have positive limitations because the aqueous solution does not exist on the first porous layer. Since applicant uses the term "when an aqueous solution", the solution is not considered to be on the sheet. This is not considered to be a positive limitation because it does not describe the final product. The statement only refers to what "might" occur.

Regarding claims 3, 7 and 11, it has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

13. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

14. Claims 1, 2, 6 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Hirose et al. (US 6,203,899).

Hirose discloses a printing medium for ink jet printing process, comprising a base material, an ink receiving layer on the base material and a surface layer on the ink receiving layer (col. 2, line 54). The ink receiving layer is equivalent to the claimed second porous layer and the surface layer is equivalent to the claimed first porous layer.

Art Unit: 1774

The surface layer comprises particles of organic resin such as ethylene-vinyl acetate and polyvinyl chloride (col. 5, line 4). The ink receiving layer comprises inorganic pigments and a binder (col. 5, line 50).

The aqueous solution recited in claims 1 and 6 that may or may not be provided on the first porous layer has not been given patentable weight because the aqueous solution is not on the first porous layer yet. Furthermore, formulae 1 and 2 do not have positive limitations because the aqueous solution does not exist on the first porous layer. Since applicant uses the term "when an aqueous solution", the solution is not considered to be on the sheet. This is not considered to be a positive limitation because it does not describe the final product. The statement only refers to what "might" occur.

Regarding claim 11, it has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

15. Claims 1-3, 5, 6 and 8-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Ashida et al. (US 6,357,871).

Ashida teaches an ink jet recording medium comprising a support, an ink absorbing layer on the support, and a layer containing particles of organic polymer (hereinafter organic particles layer) on the ink absorbing layer (col. 4, line 10). The ink absorbing layer is equivalent to the claimed second porous layer, and the organic

Art Unit: 1774

particles layer is equivalent to the claimed first porous layer. The support is a synthetic resin film of polyethylene terephthalate, polyester or polycarbonate (col. 9, line 43), wherein these materials are non-water absorptive. The ink absorbing layer comprises inorganic particles and a binder (col. 7, line 60). The organic particles layer comprise organic polymer particles made of ethylene-vinyl acetate, polyvinyl chloride, polyvinylidene chloride, styrene-butadiene rubber or NBR, and 1-30% by weight of a binder based on the organic polymer particles (col. 5, lines 12-36).

The aqueous solution recited in claims 1 and 6 that may or may not be provided on the first porous layer has not been given patentable weight because the aqueous solution is not on the first porous layer yet. Furthermore, formulae 1 and 2 do not have positive limitations because the aqueous solution does not exist on the first porous layer. Since applicant uses the term "when an aqueous solution", the solution is not considered to be on the sheet. This is not considered to be a positive limitation because it does not describe the final product. The statement only refers to what "might" occur.

Regarding claims 3 and 11, it has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ashida et al. (US 6,357,871 B1).

Ashida teaches an ink jet recording medium comprising a support, an ink absorbing layer on the support, and a layer containing particles of organic polymer (hereinafter organic particles layer) on the ink absorbing layer (col. 4, line 10). The ink absorbing layer is equivalent to the claimed second porous layer, and the organic particles layer is equivalent to the claimed first porous layer. The ink absorbing layer comprises inorganic particles and a binder (col. 7, line 60). The organic particles layer comprise organic polymer particles made of ethylene-vinyl acetate, polyvinyl chloride, polyvinylidene chloride, styrene-butadiene rubber or NBR, and 1-30% by weight of a binder based on the organic polymer particles (col. 5, lines 12-36). It has been held that the recitation (see claim 11) that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. [The coating amount of the organic particles layer is preferably 1-50 g/m² (col. 4, line 53), and the coating amount of the ink absorbing layer is preferably 3-40 g/m² (col. 8, line 44). In all of the

Art Unit: 1774

examples the coating amount of the organic particles layer is smaller than the ink absorbing layer. A coating amount of a layer is equivalent to a thickness of a layer.


Ashida does not disclose the coating amount or the thickness of the organic particles layer and the ink absorbing layer as claimed. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to optimize the coating amount or the thickness of the organic particles layer so as to enhance the water resistance of the layer while keeping good ink permeability of the layer (col. 4, line 62 to col. 5, line 8).

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 703-305-0389. The examiner can normally be reached on Mon.-Thur. 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H Kelly can be reached on 703-308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-5408 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

BS 
March 10, 2003.